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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,343	03/29/2004	David Leon	037145-3101 (NC 44399)	5004

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EXAMINER	
ABRAHAM, ESAW T	

ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/813,343	LEON ET AL.	
	Examiner	Art Unit	
	Esaw T. Abraham	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *21-24* is/are allowed.

6)☒ Claim(s) *1,9,15 and 18* is/are rejected.

7)☒ Claim(s) *2-8,10-14,16,17,19 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/24/06 has been entered.

Response to the applicant's argument

The applicant argues that the prior art of record Gupta does not teach retransmitting all of the not received data via point to point to multi-point session, determining if any expected data was not received and retransmitting the requested or expected data. However, Gupta et al. teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected but not received data) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract). Further, the examiner advice the applicant to refer to Gupta's retransmitting undelivered packets regarding the loss of data not received similar to the claim language in which the applicant uses the expression "retransmitting expected-but-not-received data".

Claim objections

In view of the amendment filed on 07/24/06, the Examiner withdraws all objections to the claims.

Claim Rejections – 35 USC § 112(1st)

In view of the Amendment filed 07/24/06 the examiner withdraws the previous 35 USC § 112 rejections to claims.

Status of Claims

1. Claims **1-20** remain pending and claims **21-24** are allowed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S. C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims **1, 9, 15 and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by Gupta et al. (U.S. PN: 6,577,599).

As per claims 1, 9 and 18:

Gupta et al. teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract).Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39).

As per claim 15:

Gupta et al. teach all the subject matter claimed in claims 1 and 9 including Gupta et al. teach a system comprising a processor, a memory, code executed by said processor configured to multicast information to a plurality of receivers in a computer network, said code comprising a method for transmitting information to one or more receivers, a method for receiving one or more responses from said one or more receivers and a method for retransmitting information to said one or more receivers based on said one or more responses (see col. 13, lines 11-12 and claim 5).

Allowable subject matter

3. Claims **2-8, 10-14, 6-17 and 19-20** are objected to as being dependent upon a rejected base claim but would be allowable if rewritten independent from including all of the limitation of the base claim and any intervening claims.

The claimed invention comprising after the sender retransmitted data, if some data was still not received, scheduling point-to-point repair sessions for specific receivers that expected data that was not received (as in claim 2) which the prior art do not teach or render obvious.

Claims 3-8, which are directly or indirectly dependents of claim 2 are also objected.

The claimed invention comprising wherein the sender device is further configured to schedule point-to-point data repair sessions with the plurality of receivers after retransmission of the requested data and the sender is configured to send expected but not received data to the plurality of receivers via point-to-point system (as in claim 10) which the prior art do not teach or render obvious.

Claims 11-14, which are directly or indirectly dependents of claim 10 are also objected.

The claimed invention comprising wherein the computer code is further configured to scheduled point-to-point data repair sessions after retransmission of the expected but not received data (as in claim 16) which the prior art do not teach or render obvious.

The claimed invention comprising wherein the computer code is further configured to determine the number of receivers on the point-to-multipoint session and schedule the point-to-point data repair sessions based on the determined number of receivers (as in claim 17) which the prior art do not teach or render obvious.

Examiner's statement for reason for allowance

4. Claims **21-24** have been allowed.

The following is an examiner's statement for allowance:

As per claim 21:

The prior art, Gupta et al. (U.S. PN: 6,577,599) of record teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract).Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious determining the number of receivers using the point-to-multipoint session; computing randomization values for a randomization

mechanism based on the determined number of receivers; scheduling point-to-point repair sessions with any of the plurality of receivers that expected data that was received; and delaying the point-to-point data repair sessions based on the computed randomization values. Consequently, claim 21 is allowed over the prior art.

As per claim 22:

The prior art, Gupta et al. (U.S. PN: 6,577,599) of record teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract).Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious determine if expected data was not received at any of the plurality of receivers; make a data repair request if any data was not received at any of the plurality of receivers; determine the number of receivers on the point-to-multipoint session; schedule point-to-point data repair sessions for each receiver that did not receive all expected data and; delaying the point-to-point data repair session

based on the number of determined receivers. Consequently, claim 22 is allowed over the prior art.

As per claim 23:

The prior art, Gupta et al. (U.S. PN: 6,577,599) of record teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract).Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious means for determining the number of receivers using the point-to-multipoint session; wherein the sender device is configured to schedule point-to-point data repair sessions with receivers that did not receive all expected data; and delaying the point-to-point data repair session based on the determined number of receivers. Consequently, claim 23 is allowed over the prior art.

As per claim 24:

The prior art, Gupta et al. (U.S. PN: 6,577,599) of record teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract).Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious a plurality of receivers for receiving data from the sender device; wherein the sender is configured to transmit data to the plurality of receivers via a point-to-multipoint session; the plurality of receivers being configured to receive data transmitted by the sender device, determine if any expected data was not received, and if so send a data repair request back to the sender device requesting that the not received data be resent; the sender being configured to determine the number of receivers on the point-to-multipoint session and to determine a randomization mechanism based on the determined number of receivers; the sender being configured to schedule point-to-point repair sessions with receivers that expect data that was not

received, the point-to-point repair sessions being delayed on the randomization mechanism. Consequently, claim 24 is allowed over the prior art.

Conclusion

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300.

Information regarding the status of an Application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Esaw Abraham

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Art unit: 2133

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